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Asymptomatic Dogs Play Main Role in Spread of Canine Visceral Leishmaniasis in Endemic Area

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Canine visceral leishmaniasis (CVL) is caused by *Leishmania infantum* in Mediterranean basin and is an endemic disease in some parts of Iran. Asymptomatic dogs have important role in distribution and transmission of disease. Materials and methods: Sixty dogs (≤ 3 years old) from Meshkin-shahr endemic area in north-west of Iran were examined for clinical signs such as dermal wounds, hair loss and cachexia. Their blood samples were collected and buffy coats were used for molecular evaluation. A nested PCR was performed for detection and specific amplification of kDNA of *L. infantum*. Results: 57 out of 60 dogs were asymptomatic. Three out of 60 dogs had Kala-azar symptoms and were positive by PCR. Six out of 57 (10.5%) asymptomatic dogs buffy coat samples showed a band about 680 bp in PCR representing canine visceral leishmaniasis. Conclusion: Considering the high prevalence of canine visceral leishmaniasis among asymptomatic dogs in comparison with symptomatic dogs, epidemiological surveys by molecular methods are needed for screening and control of disease.

Keywords: canine visceral leishmaniasis, asymptomatic dogs, PCR, Iran